

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 6, 2004

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
J. J. McConnell, Deputy Technical Director  
**FROM:** R. T. Davis/ T. D. Burns  
**SUBJECT:** SRS Report for Week Ending February 6, 2004

**Plutonium Storage:** Last Friday, DOE-SR directed WSRC to conduct a structural analysis of K-Area Material Storage (KAMS) and Building 235-F using a PC-3 ground response spectrum. The analysis will be done at both a 1.0 and 1.2 factor for the seismic component of the load. Based on this analysis, WSRC will identify appropriate facility modifications and recommend a path forward. In the Board's December 2003 report to Congress, the Board proposed that DOE perform a structural analysis based on current acceptance criteria (i.e., 1.2 seismic factor).

On Thursday, the DOE-SR manager signed a revised Authorization Agreement for KAMS that includes requirements for WSRC to operate the facility in a manner that does not rely on the ventilation system to perform a safety function. Based on the Board letter dated June 12, 2003, DOE-SR directed WSRC to operate in this manner in September 2003. The revised Authorization Agreement formalizes this requirement. WSRC is developing a new Fire Hazards Analysis and will incorporate appropriate requirements in the next revision of the Documented Safety Analysis.

**K-Area Material Storage:** Late last year, WSRC identified that nineteen 9975 shipping packages stored in KAMS had lid bolts that were torqued to 50 ft-lbs versus the required 30 ft-lbs. These shipping packages perform a safety class function for storage of material in KAMS. WSRC evaluated the impact and concluded that the higher torque would not prevent the packages from performing their safety function. However, to ensure compliance for future shipments, WSRC developed a Justification for Continued Operations (JCO) to correct the problem in KAMS. The DSA currently does not allow modification of these packages in KAMS. The JCO allows one bolt to be loosened, inspected and properly torqued at a time.

**Salt Waste Processing Facility Project:** Upon evaluating competing CD-1 designs from the two contracting finalists, the Department of Energy (DOE) has awarded Parsons Infrastructure and Technology Group the contract for final design, construction, and initial operation of the Salt Waste Processing Facility. The Parsons led team is partnered with Duratek (nuclear facility operations, safety basis development), Kvaerner (nuclear chemical processing), and Clemson University (academic resources and expertise).

DOE has directed Parsons to pursue a 50% scale facility as defined by a nominal annual processing capacity of 3 million gallons. However, DOE believes that under more realistic processing conditions than nominally assumed the actual capacity should be approximately 5 million gallons per year and that moderate design optimizations may allow for processing rates in excess of 7 million gallons per year.